

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow. Claims 5 and 11-15 were previously canceled. Claims 1-4, 6-10, and 16-24 are now pending in this application.

I. Claim Rejections Under 35 U.S.C. § 102(e)

In Section 4 of the Office Action, Claims 16-21 and 23-24 are rejected under 35 U.S.C. §102(e) as being anticipated by Hsu (US 6,363,319 hereinafter “*Hsu*”). Applicants respectfully traverse the rejection.

Hsu describes methods for selecting routes in computer communication networks. (Sec, col. 2, lines 50-51.) In this method, *Hsu* determines the cost of candidate paths using a “biased cost function” and then makes a path selection based on “minimum cumulative costs.” (Sec, col. 2, lines 50-51.) The technique selects a route with sufficient bandwidth that minimizes the cumulative biased cost. (Sec, *Hsu*, col. 3, lines 20-22.) However, *Hsu* fails to disclose, teach or suggest all of the elements of Claims 16-21 and 23-24.

A. *Hsu* fails to disclose, teach or suggest “determining a cost value by matching an allowable value of the routing factor to a characteristic of the link”

Claim 16 includes:

determining a cost value by matching an allowable value of the routing factor to a characteristic of the link.

(emphasis added.)

The Examiner asserts that *Hsu* shows this claim element by “matching hop count to link to determine cost metric.” (Sec, Office Action, page 3.) The Examiner specifically cites to *Hsu*, col. 5: lines 44-55, which states:

Also associated with each link (v,w) is a cost metric $c(v,w)$, which represents the metric advertised in the Open Shortest Path First (OSPF) Router-LSA for that link. The OSPF is an intra-domain routing protocol recommended for Internet. Note that the cost of a router link should always be 1 or greater, while the cost of a link from a transit network to a router should

always be 0. The Dijkstra technique employed by OSPF chooses the path to each destination based on the cumulated cost to that destination. Therefore, if a network has all router links of cost 1, the cost metric becomes equivalent to hop count and the least-cost path is simply the shortest-hop path.

(Emphasis added.)

As such, *Hsu* teaches that a “cost metric” is a value attributed to a link corresponding to the metric advertised in the router for that link. The cost of a router link, according to *Hsu*, “should always be 1 or greater” and the cost of a link from a transit network to a router “should always be 0.” However, there is nothing in this section or anywhere else in *Hsu* that indicates part of the procedure for calculating a link cost involves matching an “allowable value” to determine a cost value.

The suggestion by the Examiner on page 3 of the Office Action that the element is shown by “matching hop count to link to determine cost metric” does not make sense because, first, there is no discussion or suggestion by *Hsu* that hop count is an “allowable value” of a “routing factor,” and, second, even if hop count were an “allowable value,” there is no discussion or suggestion that hop count is “matched” to a “characteristic of the link.”

A rejection under 35 U.S.C. §102(e) cannot be properly maintained if not all of the claim elements are disclosed by the cited reference. *Hsu* does not show “determining a cost value by matching an allowable value of the routing factor to a characteristic of the link,” as in Claim 16. Claims 17-21 and 23-24 depend from Claim 16 and, therefore, also include this claim element. Accordingly, Applicants respectfully request withdrawal of the rejection.

II. Claim Rejections Under 35 U.S.C. § 103(a)

In Section 5 of the Office Action, Claims 1-2, 6-9 and 22 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Hsu*, as applied to claim 16 above, in view of Johnson (US 6,078,946 hereinafter “*Johnson*”). Applicants respectfully traverse the rejection. The combination of *Hsu* and *Johnson* is not proper.

A. A combination of references is not proper where the combined system would be inoperable.

With respect to Claim 6, the Examiner states:

Regarding claim 6, Hsu does not explicitly call for selecting the plurality of routing factors from a set of routing factors; for each selected routing factor, selecting one or more of the allowable values; assigning a weight to each selected routing factor; and for each selected routing factor, assigning each selected allowable value a cost.

To provide the missing teachings, the Examiner points to *Johnson*. *Johnson* describes “real time, parallel evaluation of the best path within the network using neural network principles.” (Abstract). *Johnson* further states that “[s]election of a best path from the plurality of paths comprises application of fuzzy logic, using a threshold function to identify a best relative path value by providing an input to the function which is a combination of the attribute values of the elements within each path.” (Abstract). In *Johnson*, the weighted neural attribute values defined for an object (trail/link) in a network are adjusted up or down until the resulting outputs of the objects (trails/links) being evaluated result in only one object crossing a threshold.

The procedure of *Johnson* would not work if applied to *Hsu*. The threshold function of *Johnson* is distinct and at odds with a system, like *Hsu*, that “chooses the path to each destination based on the cumulated cost to that destination.” (*Hsu*, col. 5, lines 49-52.) The technique in *Hsu* selects a route with sufficient bandwidth that minimizes the cumulative biased cost. (See, *Hsu*, col. 3, lines 20-22.)

An obviousness rejection cannot be properly maintained where the references used in the rejection are not properly combinable. Therefore, Applicants respectfully request allowance of the rejected claims over the combination of *Hsu* and *Johnson*.

B. The combination of *Hsu* and *Johnson* fails to teach or suggest “prioritizing the selected allowable values” as in Claims 1 and 2.

On page 5 of the Office Action, the Examiner states regarding Claim 1: “Hsu does not explicitly disclose for each routing factor, prioritizing the selected allowable values.” The Examiner points to *Johnson*, col. 7, lines 29-30 for this feature. *Johnson* teaches use of an “arbitrary scale to provide a numerical value which can be identified as neural attributes.” The higher the number indicates the greater desirability. However, although a “scale” is mentioned, there is no teaching or suggestion of a prioritization. *Johnson* merely indicates the use of a numerical value from a scale to indicate desirability, not whether the neural attributes are given values which designate priority. Desirability and priority are two distinct things.

An obviousness rejection cannot be properly maintained where the references used in the rejection do not teach or suggest all of the claim elements of the rejected claim. Claims 1 and 2 both include “prioritizing the selected allowable values,” which is not taught or suggested by *Hsu* and *Johnson*, alone or in combination. Therefore, Applicants respectfully request withdrawal of the rejection of Claim 1 over the combination of *Hsu* and *Johnson*.

Claims 3-4

In Section 6 of the Office Action, Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hsu*, as applied to claim 16 above, in view of *Odiaka* (US 6,829,347, hereinafter “*Odiaka*”). Applicants respectfully traverse the rejection.

On page 7 of the Office Action, the Examiner states: “Regarding claim 3, Hsu does not explicitly call for determining if the routing factor applies to the link, and if the routing factor does not apply, assigning a large cost value for that factor to the weighting value.” On page 8 of the Office Action, the Examiner states: “Regarding claim 4, Hsu does not explicitly call for determining if an allowable value matches the characteristic of the link, and if no allowable value matches the characteristic of the link, using a large cost value for the cost value.”

Claims 3 and 4 depend from Claim 16. As explained above, *Hsu* does not show “determining a cost value by matching an allowable value of the routing factor to a characteristic of the link,” as in Claim 16. *Odiaka* does not provide this missing teaching. As

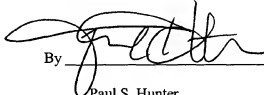
such, the combination of *Hsu* and *Odiaka* does not teach or suggest each and every claim element from Claims 3 and 4. Withdrawal of the rejection is respectfully requested.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,



By

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